

Appl. No. 10/826,020
Amdt. Dated July 12, 2006
Reply to Office Action of March 20, 2006

Attorney Docket No. 81857.0008
Customer No.: 26021

REMARKS/ARGUMENTS

Claims 1-14 were pending in the Application. By this Amendment, claims 1, 7 and 8 are being cancelled, and claims 2, 3, 4, 5, 11 and 14 are being amended, to advance the prosecution of the Application. No new matter is involved.

In Paragraph 1 on page 2 of the Office Action, it is noted that the declaration is defective inasmuch as the mailing address of the Applicant does not include a ZIP code. In response, Applicant is enclosing a new declaration which complies with the requirements.

In Paragraph 2 on page 2 of the Office Action, the disclosure is objected to because of alleged informalities on page 6 of the Specification. In actuality, the incorrect reference numbers appear on page 5 of Applicant's copy of the Specification. In any event, the paragraph on page 5 of the Specification which contains the incorrect reference numerals is being amended.

In Paragraph 3 on page 2 of the Office Action, the abstract is objected to because it exceeds 150 words. In response, Applicant is presenting an amended Abstract which has been shortened to less than the 150 word maximum.

In Paragraphs 5 and 6 on page 3 of the Office Action, claims 7 and 8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 7 and 8 are being cancelled, thereby obviating this rejection.

In Paragraph 8 on page 3 of the Office Action, claims 1-4, 7 and 8 are rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent Application Publication 2004/0050608A1 of MacDougall. This rejection is respectfully traversed with respect to claims 2-4 which are being amended herein.

In Paragraph 11 on page 4 of the Office Action, claims 9, 10, 12 and 13 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,657,543 of Collins. This rejection is respectfully traversed.

In Paragraph 13 on page 5 of the Office Action, claims 5, 6, 11 and 14 are objected to as being dependent upon a rejected base claim but are indicated as allowable if rewritten in independent form. Claim 5 is being rewritten in independent form so that such claim should now be allowable, as well as claim 6 which depends from and contains all of the limitations thereof. Similarly, claims 11 and 14 are being rewritten in independent form, so that such claim should also be allowable.

Briefly stated, the present invention provides an air bag puncture device which extends from the torso of a vehicle occupant and has a pointed outer end. Upon inflation of an air bag against the torso of the occupant, the device punctures the air bag to soften the outer surface of the air bag and thereby prevent injury to the occupant. The puncture device may be mounted on a resilient clip for removable mounting to the shoulder harness of a vehicle seat belt system and may comprise a cylindrical cutting device having a serrated outer end opposite the resilient clip for puncturing the inflating air bag. A hollow cylindrical collar is slidably mounted on the cylindrical cutting device and normally extends beyond the serrated outer end of the cutting device to prevent unwanted injury to the vehicle occupant. However, upon inflation of the air bag, the bag pushes the hollow cylindrical collar along the cutting device, against the resistance of a coil spring disposed between the hollow cylindrical collar and the resilient clip, until the serrated outer end of the cutting device protrudes from the cylindrical collar and punctures the air bag so as to provide a controlled amount of deflation of the air bag. The coil spring defines a predetermined amount of force by the inflating bag which is necessary before the bag is punctured. As the bag is punctured, escaping gas therefrom is vented through the hollow interior of the cutting device and out through a venting slot in the cutting device and a vent hole in the cylindrical collar.

The MacDougall reference describes vehicle safety escape apparatus which may be mounted on a seat belt and which includes a pointed tip designed to break window glass in an emergency. The apparatus is designed to be used as a tool rather than a device extending from a vehicle occupant and puncturing an inflating air bag to provide controlled deflation of the air bag, as in the case of the present invention.

Claim 2 defines a seat belt system for controlled deflation of an inflating air bag comprising a belt for disposition on a vehicle occupant and a puncture device mounted on the belt and having a pointed tip for puncturing an air bag which inflates against the belt. As amended, the puncture device is defined as including "means for venting gas therethrough from an inflating air bag upon puncturing of the bag". Venting is provided by the venting slot 40 and the vent hole 42 shown in Fig. 3. According to the second paragraph in Paragraph 9 on page 3 of the Office Action, the surface of the various tips in MacDougall provides a means for venting gas. However, apart from the fact that the structures shown in MacDougall are not designed for or intended for use with an inflating air bag, claim 2 as amended defines "means for venting gas therethrough from an inflating air bag". The surfaces of the tips in MacDougall do not vent gas from an inflating air bag, particularly "therethrough" as now recited in claim 2. Therefore, claim 2 is submitted to clearly distinguish patentably over MacDougall.

As amended, claim 3 depends from and contains all of the limitations of claim 2, so that such claim is also submitted to clearly distinguish patentably over MacDougall.

As amended herein, claim 4 defines a seat belt system for controlled deflation of an inflating air bag comprising a belt for disposition on a vehicle occupant and a puncture device mounted on the belt and having a pointed tip for puncturing an air

bag which inflates against the belt. The puncture device includes "means for shielding the pointed tip except when an air bag inflates against the belt". According to the last paragraph of Paragraph 9 which begins at the bottom of page 3 of the Office Action, the element 20 shields the pointed tip 18 except when an air bag inflates against the belt". However, in reality, the device 20 of MacDougall has nothing to do with and would not respond to an inflating air bag. Rather, the device 20 is a protective covering for the pointed tip 18 which must be removed by a user of the apparatus. Therefore, claim 4 is submitted to clearly distinguish patentably over the cited reference.

Claims 9, 10, 12 and 13 are submitted to clearly distinguish patentably over Collins in their present form. Collins describes an emergency tool which incorporates a number of features, the principal one of which is a spring-loaded carbide-tipped implement 18 which is selectively released to break auto glass.

Claim 9 defines an air bag puncture device comprising a cylindrical cutting device having a serrated outer end, a spring loaded collar slidably mounted on the cylindrical cutting device and means for mounting the cylindrical cutting device on a vehicle seat belt". According to Paragraph 12 on page 4 of the Office Action, the device 18 of Collins has a serrated outer end 36. In reality, however, the end 36 is simply a tip and is not a serrated outer end, as called for in claim 9. Further according to Paragraph 12 on page 4 of the Office Action, the device of Collins has a spring loaded collar 20 slidably mounted on the cylindrical cutting device. In reality, the device 20 is a carrier which mounts the carbide tipped implement 18, as described beginning at line 29 of column 3 of the reference. Claim 9 still further defines the puncture device thereof in terms of means for mounting the cylindrical cutting device on a vehicle seat belt. In Paragraph 12 on page 4 of the Office Action, the device of Collins is said to include means 12 and 54 for removably mounting the

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device seat belt. In reality, however, element 12 is a handle for the tool and element 54 is a blade. These items have nothing to do with mounting on a vehicle seat belt. Consequently, claim 9 is submitted to clearly distinguish patentably over Collins in its present form.

Claim 10 depends from and contains all of the limitations of claim 9, so that such claim is also submitted to clearly distinguish patentably over Collins. In addition, claim 10 further defines the spring loaded collar of claim 9 as including "a spring having a resilient resistance to sliding movement of the collar over the cutting device". In Collins, the spring 22 does not have a resilient resistance to sliding movement of the collar over the cutting device, inasmuch as the collar (carrier 20) is described, for example beginning at line 29 of column 3 of the patent, as being fixedly coupled to and mounting the carbide-tipped implement 18 thereon. Therefore, claim 10 is submitted to clearly distinguish patentably over Collins.

Claim 12 depends from and contains all of the limitations of claim 9, so that such claim also distinguishes patentably over Collins. In addition, claim 12 further defines the puncture device as including "means for removably mounting the cylindrical cutting device on a vehicle seat belt". As described above, the elements 12 and 54 referred to in the Office Action have nothing to do with removably mounting of the tool of Collins on a seat belt. Similar comments apply to claim 13 which depends from and further defines claim 12 in terms of the means for removably mounting including a resilient clip. Elements 12 and 54 of Collins do not include a resilient clip.

As noted above, claims 5, 6, 11 and 14 have each been rewritten in independent form, so that such claims should now be allowable. In addition, claims 2-4, 9, 10, 12 and 13 are submitted to clearly distinguish patentably over the cited

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art for the reasons discussed above. Therefore reconsideration and allowance are respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6846 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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